



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/766,275	01/19/2001	Toshio Kobayashi	SHC0104	1331

7590 03/29/2004

Michael S Gzybowski  
Butzel Long  
350 South Main Street  
Suite 300  
Ann Arbor, MI 48104

EXAMINER

BOYD, JENNIFER A

ART UNIT	PAPER NUMBER
----------	--------------

1771

DATE MAILED: 03/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/766,275

Applicant(s)

KOBAYASHI ET AL.

Examiner

Jennifer A Boyd

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) 4 and 5 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION*****Response to Amendment***

1. The Applicant's Amendments and Accompanying Remarks, filed December 29, 2003, have been entered and have been carefully considered. Claims 1 and 6 are amended, claims 4 – 5 are withdrawn and claims 1 – 3 and 6 are pending. In view of Applicant's Arguments, the Examiner withdraws the 35 U.S.C. 102 (e) rejection of claims 1 – 3 and 6 as being unpatentable over copending application 09/613814 as set forth in paragraph 17 of the previous Office Action mailed October 9, 2003. In view of Applicant's Arguments, the Examiner withdraws the 35 U.S.C. 103(a) rejection of claim 6 as set forth in paragraph 18 of the previous Office Action mailed October 9, 2003; please note that the Examiner does not withdraw the rejection of claims 1 – 3 found in the same paragraph, only further elaborates the rejection. In view of Applicant's Arguments, the Examiner withdraws the provisional rejection of claims 1 – 3 and 6 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 – 30 of copending Application No. 09/613814 as detailed in paragraph 19 of the previous Office Action dated October 9, 2003. Despite these advances, the invention as currently claimed is not found to be patentable for reasons herein below.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

***Double Patenting***

Art Unit: 1771

3. Claims 1 – 3 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 – 30 of copending Application No. 09/613814 in view of Morman (US 5,681,645). Application 09/613814 teaches an elastic web having stretchability in two different directions and a fibrous, inelastic web being bonded together at bond regions but fails to teach that component fibers comprise ethylene/propylene copolymer containing ethylene at 0.5 – 10% by weight, ethylene/propylene/butene containing ethylene at 0.5 – 10% by weight and butene at 0.5 – 15% by weight, or a mixture thereof at 100 – 10% by weight. Morman describes multi-directional stretch composite elastic material comprising at least one sheet which is stretched and one necked (non-elastic) material, which are joined together in at least three locations corresponding to the instantly claimed binding spots (column 3, lines 30-45). Morman describes the non-elastic materials are nonwovens made of polyolefins and similar polymers including ethylene copolymers, propylene copolymers and butene copolymers (column 4, lines 44 - 64). It would have been obvious to one of ordinary skill in the art at the time the invention was made to create the non-elastic textile web of Strack with the copolymer combination of Morman motivated by the desire to improved resilience, stretch and recovery of the composite. It would have been obvious to one of ordinary skill in the art to optimize the amount of ethylene and polypropylene or ethylene, propylene and butene motivated by the desire to create fibers with high strength and flexibility.

4. Claim 6 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,372,067 to Kobayashi et al. Although the conflicting claims are not identical, they are not patentably distinct from each other

Art Unit: 1771

because the steps for making the composite sheet are almost the same except the instant application requires that the breaking extension is **at least 80%** and the instant application does not require that the first and second webs are bonded at a set of second bonding regions.

5. Claim 6 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,531,014 to Kobayashi.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the steps for making the composite sheet are almost the same except the instant application requires that the breaking extension is **at least 80%**.

***Claim Rejections - 35 USC § 103***

6. Claims 1 – 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Strack et al. (US 5,681,645) in view of Morman (US 5,681,645).

Strack is directed to a laminate material with stretchability and recovery, breathability and barrier properties (Abstract).

As to claim 1, Strack teaches a laminate material comprising a non-woven web elastomeric web having at least one web of textile material discontinuously bonded to each side (Abstract). Strack describes the laminate with at least two textile webs, a non-elastic textile web with stretch and recovery characteristics, and a textile web with non-woven elastomeric web properties (column 5, lines 58 - 67). Strack describes the various kinds of elastomeric web materials such as HYTREL (column 6, lines 22-67). It should be noted that the Applicant only requires that the elastic sheet is stretchable in **at least one** of the two directions that are orthogonal to each other, therefore, HYTREL would meet the elongation requirements because it

Art Unit: 1771

elongates at least in one direction as seen in the Product Specification. Strack describes the use of adhesive which laminates the webs together so that the elasticity of that the laminate will not be interfered, i.e., interfere with recoverability (column 9, lines 35-61). Strack describes that the laminate can be used as a garment with thermal insulation and a dirt barrier to protect the wearer, while having breathability for comfort (column 11, lines 42 - 46).

As to claim 2, it should be noted that Strack does not teach the use of propylene homopolymer in the component fibers which meets the Applicant's requirements of 0 % by weight.

As to claim 3, Strack teaches that the bonding temperature of the adhesive can reach 500 degrees F (column 10, lines 29 - 38), which would result in Applicant's "heat sealed".

Strack fails to teach that the component fibers of the sheet having inelastic stretchability comprises ethylene/propylene copolymer containing ethylene at 0.5 - 10% by weight, ethylene/propylene/butene containing ethylene at 0.5 - 10% by weight and butene at 0.5 - 15% by weight, or a mixture thereof at 100 - 10% by weight as required by claim 1.

Morman describes multi-directional stretch composite elastic material comprising at least one sheet which is stretched and one necked (non-elastic) material, which are joined together in at least three locations corresponding to the instantly claimed binding spots (column 3, lines 30-45). Morman describes the non-elastic materials are nonwovens made of polyolefins and similar polymers including ethylene copolymers, propylene copolymers and butene copolymers (column 4, lines 44 - 64).

Art Unit: 1771

It would have been obvious to one of ordinary skill in the art at the time the invention was made to create the non-elastic textile web of Strack with the copolymer combination of Morman motivated by the desire to improved resilience, stretch and recovery of the composite.

As to claim 1, Strack in view of Morman discloses the claimed invention except for that the inelastic material comprises ethylene/propylene copolymer containing ethylene at 0.5 – 10% by weight, ethylene/propylene/butene containing ethylene at 0.5 – 10% by weight and butene at 0.5 – 15% by weight, or a mixture thereof at 100 – 10% by weight. It should be noted that the amount of ethylene or ethylene and butene is a result effective variable. For example, as the amount of ethylene increases, the material possess more characteristics similar to ethylene, etc. It would have been obvious to one having ordinary skill in the art at the time the invention was made to create the inelastic material comprising ethylene/propylene copolymer containing ethylene at 0.5 – 10% by weight, ethylene/propylene/butene containing ethylene at 0.5 – 10% by weight and butene at 0.5 – 15% by weight, or a mixture thereof at 100 – 10% by weight since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). In the present invention, one would have been motivated to optimize the amounts of ethylene or the amounts of ethylene and butene in order to have a properly strong and resilient composite web.

***Response to Arguments***

Art Unit: 1771

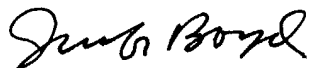
7. Applicant's arguments filed December 29, 2003 concerning the USC 103(a) rejection of claims 1 – 3 as being unpatentable over Strack et al. (US 5,681,645) in view of Morman (US 5,681,645) have been fully considered but they are not persuasive.

8. As to Applicant's Arguments concerning the combination of Strack in view of Morman, the Examiner has rephrased the rejection above to clarify the art rejection.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer A Boyd whose telephone number is 571-272-1473. The examiner can normally be reached on Monday thru Friday (8:30am - 6:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jennifer Boyd  
March 19, 2004

  
**Ula C. Ruddock**  
Primary Examiner  
Tech Center 1700